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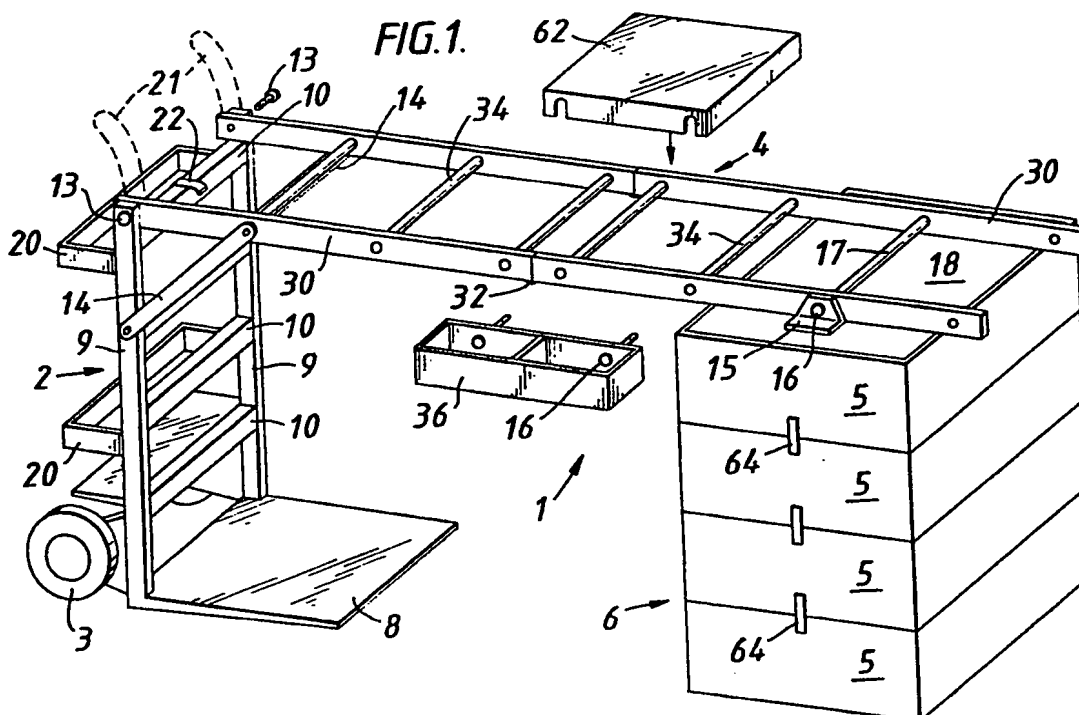
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## (54) Portable work bench

(57) The bench (1) has a collapsible work top (4) supported by a chassis (2) in the form of a wheeled trolley, and a set of interlockable modules (5) in the form of a base unit (6). The modules are formed as containers for tools and fittings for the work top. The folded work top and the base unit can be carried on the trolley. Preferably the work top is formed as a pair of spaced longitudinal members (30) spaced apart and secured parallel to each other by hollow tubular members (34). The hollow tubular members receive extensions and fittings.



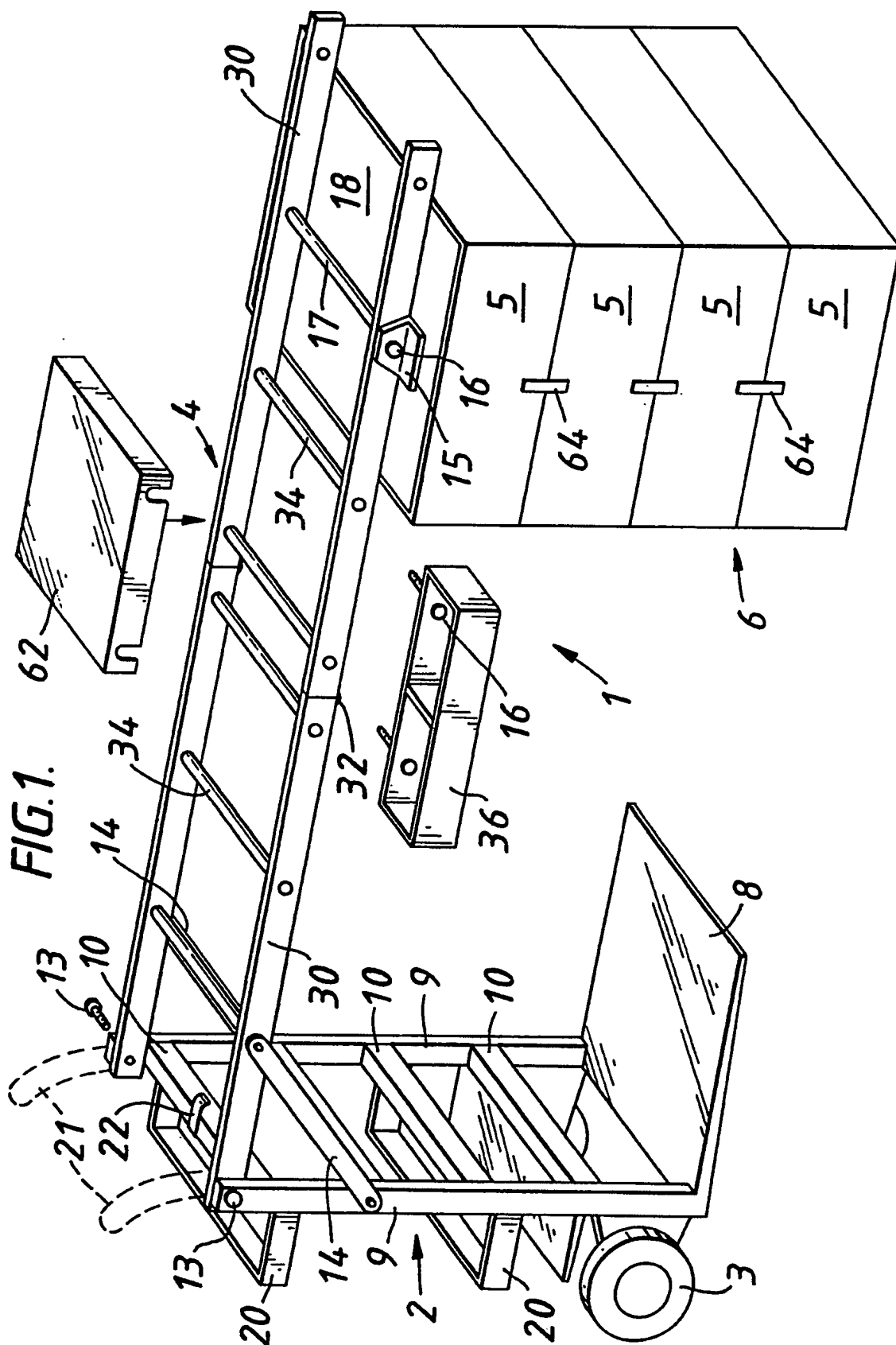


FIG. 2.

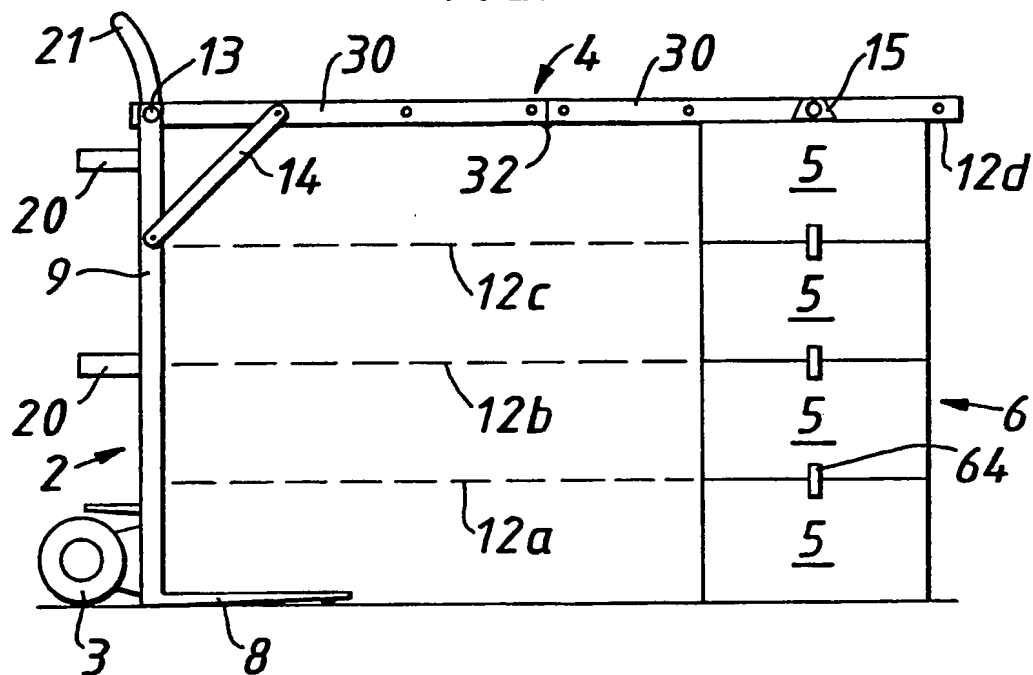


FIG. 3.

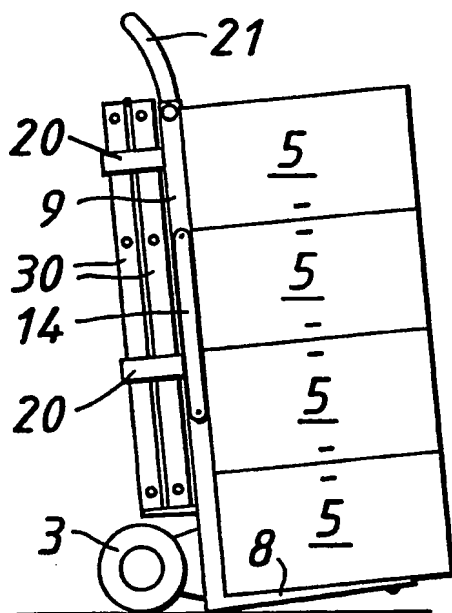
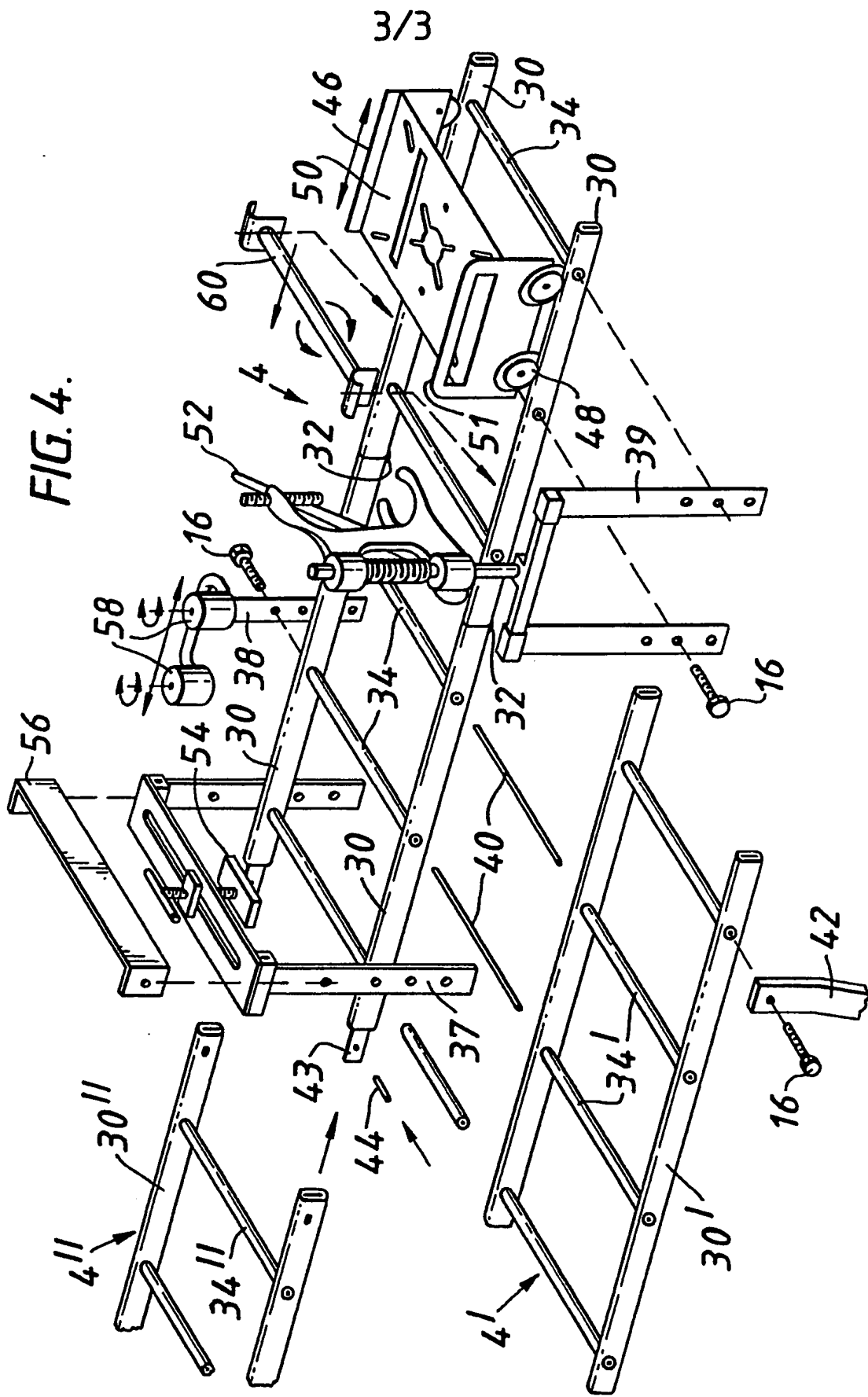


FIG. 4.



PORTABLE WORK BENCH

The present invention relates to a portable work bench.

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Portable work benches are well known. Commonly these have a number of fittings to enable them to be adapted to a number of different purposes such as clamping, providing a step or support and so on.

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It is an object of the present invention to improve the adaptability of such benches.

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Accordingly a portable work bench according to the present invention comprises a chassis in the form of a wheeled trolley, a collapsible work top and a set of interlockable modules arranged to form a base unit, wherein in an assembled condition the work top is supported at an equal height between the chassis and the base unit, and wherein in a disassembled condition the work top and base unit are arranged to be carried by the chassis.

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The work top is preferably formed as a pair of spaced longitudinal members which can act as rails for guiding tools along the length of the work top. Preferably the longitudinal members are secured parallel to each other by hollow tubular members which can receive securing means for work top extensions. The lateral work top extension(s) may be formed in a similar form to the work top and may also be fixed to the work top as one or more longitudinal extensions. The work top with or without longitudinal extensions may be in the form of a ladder. The longitudinal members can act as rails to guide longitudinally movable tools such as circular saws or routers.

The longitudinal members and/or hollow tubular members acting as spacers can act as locating members to receive a bin, tray or drawer which can be stowed when not in use in one of the modules of the base unit. The tubular members provide a very useful means for securing brackets or tools using the internal cavity and surface of the tubular cross members to receive securing means.

The invention will now be described with reference to the accompanying drawings in which;-

Figure 1 is a perspective drawings of a portable work bench according to the invention,

Figure 2 is a side elevation of the work bench of Fig. 1 with its work top in as assembled mode,

Figure 3 is a side elevation of the work bench of Fig. 1 with its work top in a disassembled mode packed up ready for movement, and

Figure 4 is a perspective drawing of the work top of the bench of Fig.s 1 to 3 showing extensions for the work top.

In Fig. 1 there is shown a portable work bench 1 comprising a chassis 2 in the form of a wheeled trolley with ground wheels 3, a collapsible work top 4 and a set of four interlockable modules 5 formed as containers arranged to form a base unit 6. The trolley or wheeled chassis 2 has a loading base 8 designed to carry modules 5 (see Fig. 3), a pair of parallel upright frame members 9 interconnected by four cross members 10 the top surface of each of which is at a height corresponding to the top surface of each module 5 so that when the work top 4 is in the assembled mode, the work top is supported on the top surfaces of the cross members and modules at a selected equal height 12a 12b, 12c or 12d (see Fig. 2) between the chassis 2 and base unit 6 depending on the number of modules 5 in the base unit 6.

The work top is secured to the chassis by bolts 13 through the upright members 9 and struts 14 and to the base unit 6 by means of a plate 18 carrying brackets 15 bolted by expansion bolts 16 into cross members 17 of the work top 4.

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The chassis 2 also has retaining means 20 in the form of brackets welded to the upright members 9 which enable the work top in a collapsed disassembled condition to be carried by the chassis (see Fig. 3)

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The chassis 2 has handles 21 which by means of bolts 13 can be removed to present an unencumbered upper surface for the work top. The handles can also by the same means be reversed. A retaining bracket 22 on upper cross member 10 retains the modules 5 in the disassembled condition stacked ready for trolleying.

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The work top of 4 shown in detail in Fig. 4 is constructed in the form of a ladder having two pairs of hollow parallel longitudinal members 30 hinged at 32 and secured parallel to each other by hollow tubular members 34 into which expansion bolts 16 can be inserted to secure lateral extensions such as a pin 36, or brackets 37, 38 or 39. Also the hollow tubular members 34 can receive bars 40 for receiving lateral work top extensions 4' formed with longitudinal members 30' and hollow tubular members 34' similar in form and dimensions to work top 4 and which is supported by one or more legs 42 secured by the same expansion bolt arrangement by bolt 16. The work top 4 can not only be extended laterally but also longitudinally by extensions 4" secured by plates 43 and pins or bolts 44, the plates 43 inserting in the hollow ends of longitudinal members 30". The longitudinal extensions are supported by legs 42 (not shown) similar to those for the lateral extensions.

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The longitudinal members 30, 30' and 30" act as rails along which a longitudinally movable carriage 46 having flanged wheels 48 can travel. The carriage has a tool receiving base plate 50 to which can be bolted a machine tool such as a circular saw or router (not shown). A handle 51 is provided on one side for moving the carriage. Bracket 39 bolted to the side of one longitudinal member 30 carries a power drill stand 52. Bracket 37 carries a vertically adjustable clamp 54 and/or stop plate 56. Bracket 38 carries vertical axis rollers 58. Two brackets 37 with clamps 54 can provide for clamping workpieces laterally across the work top.

The longitudinal members 30, 30' and 30" can also receive drop in roller bars 60 with horizontal axis rollers which can act with follers 58 to stabilise workpieces. The cross members 34 can receive work top plates 62 (see Fig. 1) which can be tool mounting plates. The cross members can also receive bins, drawers or trays (not shown which can be dropped into gaps between cross members 34 and which can be stowed in modules 5.

The modules 5 are arranged to be clipped together by clips 64 (see Fig. 1) and as mentioned above the top module receives plate 18 which drops into the open top of the module. Alternatively the modules may merely be self interlocking. Each module is conveniently a storage unit for tools, components of the work bench and boxes of screws and so on so that in effect a complete workshop can be stowed in a portable manner on the trolley like chassis.

The worktop itself can be used with or without extensions as a ladder for other household tasks.

The work bench is constructed so that the chassis at one



end can be unbolted and replaced by legs so that the trolley can be used for additional tasks.

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The bench of the invention is designed to be adaptable to a wide range of tasks and is suitable for use by mobile woodworkers or maintainers working from vans. An advantage of the invention is that each major component is separately or independently useful.

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C L A I M S

1. A portable work bench comprising a chassis in the form of a wheeled trolly, a collapsible work top and a set of interlockable modules arranged to form a base unit, wherein in an assembled mode the work top is supported at an equal height between the chassis and the base unit, and wherein in a disassembled condition the work top is collapsed and with the base unit modules are carried by the chassis.

2. A portable work bench as claimed in claim 1 wherein the chassis has means for retaining the work top in a folded or component form.

3. A portable work bench as claimed in claims 1 or 2 wherein the chassis has means to secure it to the work top.

4. A portable work bench as claimed in any one of claims 1 to 3 wherein the chassis in the form of a wheeled trolley has handles which may be detached and/or reversed.

5. A portable work bench as claimed in any one of claims 1 to 4 wherein the worktop has means to secure stabilizer arms/and or legs.

6. A portable work bench as claimed in any one of claims 1 to 5 wherein the work top height may be adjusted by means provided on the chassis and by adding or subtracting modules forming the base unit.

7. A portable work bench as claimed in any one of claims 1 to 6 wherein at least one of the modules has a drawer, bin or tray which can be received and fitted to the work top.

8. A portable work top bench as claimed in any one of claims 1 to 7 wherein the work top is hinged intermediate its ends so as to fold the work top.

5 9. A portable work bench as claimed in any one of claims 1 to 18 wherein the work top is formed as a pair of spaced longitudinal members.

10 10. A portable work bench as claimed in claim 9 wherein the longitudinal members are secured parallel to each other by hollow tubular members.

15 11. A portable work bench as claimed in claim 10 wherein extensions for the work top are provided which are securable within the hollow tubular members.

20 12. A portable work bench as claimed in any one of claims 1 to 11 wherein the work top is adapted to receive longitudinal extensions.

25 13. A portable work bench substantially as described with reference to the accompanying drawings.

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